



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/679,486

10/07/2003

Sami Pienimaki

061602-6000

4042

30542

7590

08/17/2010

FOLEY & LARDNER LLP

P.O. BOX 80278

SAN DIEGO, CA 92138-0278

EXAMINER

GEE, JASON KAI YIN

ART UNIT

PAPER NUMBER

2434

MAIL DATE

DELIVERY MODE

08/17/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/679,486	<b>Applicant(s)</b> PIENIMAKI ET AL.	
	<b>Examiner</b> JASON K. GEE	<b>Art Unit</b> 2434	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 06 July 2010.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 5-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 5-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                      |                                                                   |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____                                                          | 6) <input type="checkbox"/> Other: _____                          |

***DETAILED ACTION***

1. This action is response to communication: arguments filed 07/06/2010.
2. Claims 1, 2, and 5-12 are current pending in this application.
3. No new IDS was received for this application.

***Response to Arguments***

4. Applicant's arguments filed 07/06/2010 have been fully considered but they are not persuasive.

The applicants argue that Wu fails to teach or suggest performing any operations “after” the terminal is authenticated/authorized at the second AP. The applicants argue “That is, after an ACP initiates the AAA procedure for a UT and after the UT is authenticated at the AAA back-end system, the ACP forces applications to switch traffic to an encrypting security service port when the UT tries to access the Internet IP.” First of all, the claim language does not suggest performing any operations after the terminal is authenticated or authorized. The claims merely describe initiating an AAA procedure and enforcing an application to switch traffic provided over internet access to a secure port. Initiating an authentication procedure does not imply that a user terminal is authenticated.

Further, even if this is not claimed, Wu teaches such limitations. As seen in Wu paragraphs 37-40, Wu describes a handoff procedure. Each access points provide access to networks (such as the Internet). As mentioned in paragraph 37, each access point may be an authenticator, and may require a terminal to be authenticated by an

Art Unit: 2434

authentication server in order for the terminal to access the network. As shown in paragraphs 39-40, Wu continues to teach a hand-off procedure. Therefore, once a user terminal is authenticated, it may access a public network such as the Internet through a particular access point. When the user terminal falls outside the coverage area of that access point, a WEP handoff may occur. For example, see paragraphs 43-45, wherein a wireless terminal, original connected to access point 14, may then continue to access a network via access point 16. When it connects to access point 16, the communications are encrypted via the WEP key. The new connection to the access point 16 is the encrypting security service port. Therefore, as seen in Wu, Wu teaches an initiating of an AAA procedure for a user terminal, and enforcing an application to switch any traffic provided over internet access to the user terminal in the public wireless lan to an encrypting security service port.

As mentioned in the prior Office Action, it is unclear in Wu whether the initiating and enforcing are performed by an access control point. As described in paragraph 37 of WU, each access point may be an authenticator. However, the paragraph further mentions that a terminal may need to be authenticated by an authentication server beforehand. The applicants argue that Zhang does not teach such limitations. The applicants argue that Zhang does not teach again the limitations of performing any operations after the terminal is authenticated/authorized. However, no such operations are even claimed. Again, even if they were claimed, the Wu references teaches these limitations, as argued above. As seen in the office action, the Zhang reference is applied to clearly show that it would be obvious that an access point may perform the

Art Unit: 2434

initiating and enforcing the switch to an encrypting security service port. As mentioned in the previous office action, Zhang teaches such limitations, such as in paragraphs 58, 59, 64, 95-96, and paragraphs 102-104. These paragraphs teach that an access point performs all these duties; the access point has a controller performing these functions, as indicated in paragraph 58, wherein the controller acts as the controller for communications between a mobile terminal and an AAA server. Also as seen in paragraphs 102-104, a handoff is performed between two access points. This is an encrypted security port, as the access points may require security, such as IPSEC, as taught in paragraphs 67-69. Also, as seen in Figure 1, the access point provides internet access gateway functionality as it provides access to the gateway, and provides access to the public wireless lan such as seen in paragraph 102. Therefore, Wu as modified by Zhang teaches all the limitations of the claims.

The applicants also argue in regards to claims 2, 8, and 11. The applicants argue that although Lyons may teach SSL/TLS, Lyons does not teach that the "encrypting security service" is SSL/TLS. This is not persuasive. SSL and TLS are by themselves cryptographic protocols, which is an encrypting security service. These protocols encrypt communications such that they are safe. Lyons is used to teach that such protocols are well known in the art of cryptography and are used to produce secure communications. The applicants argue that there is also no motivation to combine the Lyons reference with Wu and Zhang. As mentioned in the prior office action, utilizing SSL and TLS increase security. Both of these are well known protocols,

Art Unit: 2434

and it would be obvious to try different security protocols in systems requiring secure communication, especially with protocols that are widely known and used.

The applicant's arguments are not persuasive, and the prior references teach the limitations of applicants claims.

The Examiner suggests to the applicants to amend their claims. The claims, as they stand, recite "initiating" an AAA procedure. "Initiating" is a very broad term, and does not really limit the claims to much. Further, the "enforcing" is directed toward just switching traffic to an encrypting security service port. The claims are not directed toward any type of encryption, nor do they limit the invention to perform anything after traffic is switched.

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 5-7, 9, 10, and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wu et al. US Patent Application Publication 2004/0203783 (hereinafter Wu), in view of Zhang et al. US Patent Application Publication 2002/0174335 (hereinafter Zhang).

As per claim 1, Wu teaches a method, comprising: providing access to a public wireless local area network for a user terminal ((Figure 2, paragraph 3, 23; also see paragraph 25, 26; user terminal are terminals); initiating an authentication, authorization, and accounting procedure for the user terminal (Figure 2, paragraph 25 and 26); providing an internet access gateway functionality (paragraph 3 and throughout the reference); and enforcing an application to switch any traffic provided over internet access to the user terminal in the public wireless local area network to an encrypting security service port (paragraphs 12, 30, 31, 39-40, and throughout the reference, where handoff keys are used and users are transferred to different access points).

However, it is unclear whether the initiating and enforcing are performed by an access control point. This would have been obvious though, as taught throughout Zhang, such as in paragraphs 58, 59, 64, 95-95, and paragraphs 102-104 (these paragraphs teach an access point performs all these duties; the access point has a controller performing these functions, as indicated in paragraph 58, wherein the controller acts as the controller for communications between a mobile terminal and an AAA server; also as seen in paragraphs 102-104, a handoff is performed between two access points. This is an encrypted security port, as the access points may require security, such as IPSEC, as taught in paragraphs 67-69; also, as seen in Figure 1, the access point provides internet access gateway functionality as it provides access to the gateway, and provides access to the public wireless lan such as seen in paragraph 102).

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine Wu with Zhang to teach initiating and controlling the security of communications with an access point controller. One of ordinary skill in the art would have been motivated to perform such an addition to create more security and allows for more flexibility over different networks (Zhang paragraphs 59-62).

As per claim 5, Wu teaches retrieving information by the access control point from RADIUS messages whether a user terminal does not use a 802.11 encryption, and performing the enforcing to the application if it is accessed by such a user terminal (paragraphs 28, 43, 42.12, 30, and 31).

As per claim 6, it would have been obvious over Wu to teach wherein the application can be one of a group comprising the hypertext transfer protocol for browsing the Internet, the Internet message access protocol 4, the post office protocol 3, and the simple mail transfer protocol. Paragraphs 23 and 24 of Wu teach that the application may be one to communicate via the Internet. Using the hypertext transfer protocol for browsing the Internet is well known in the art, as it is the typical standard in browsing the Internet and is universally used.

Claim 7 is rejected using the same basis of arguments used to reject claim 1 above. As taught in Zhang, the means for controlling, means for initiating, means for providing internet access, and means for initiating is performed by the access point, which contains a router based controller (paragraphs 58 and 59).



Claim 9 is rejected using the same basis of arguments used to reject claim 5 above.

Claim 10 is rejected using the same basis of arguments used to reject claim 1 and 7 above. As seen, the router based controller in the access point acts as the controller to perform the necessary functions.

Claim 12 is rejected using the same basis of arguments used to reject claim 5 above.

7. Claims 2, 8, and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wu et al. US Patent Application Publication 2004/0203783 (hereinafter Wu), in view of Zhang et al. US Patent Application Publication 2002/0174335 (hereinafter Zhang), and further in view of Lyons et al. US Patent Application Publication 2003/0009691 (hereinafter Lyons).

As per claim 2, Wu as modified does not explicitly teach utilizing the secure sockets layer or the transport layer security. However, this would have been obvious, as taught throughout Lyons, such as in paragraphs 14-15.

At the time of the invention, it would have been obvious to one of ordinary skill in the art to combine the Wu combination with Lyons to teach utilizing ssl or tls. One of ordinary skill in the art would have been motivated to perform such an addition to create more security and to provide verification and management of systems (Lyons paragraph 6).

Claim 8 is rejected using the same basis of arguments used to reject claim 2 above.

Claim 11 is rejected using the same basis of arguments used to reject claim 2 above.

### ***Conclusion***

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JASON K. GEE whose telephone number is (571)272-6431. The examiner can normally be reached on M-F, 7:00 am to 4:30 pm.

Art Unit: 2434

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kambiz Zand can be reached on (571) 272-38113811. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Jason Gee/  
Patent Examiner  
Technology Center 2400  
08/05/2010

/Farid Homayounmehr/  
Primary Examiner  
AU: 2434